DC-8 11/04/16 - 11/05/16

Aircraft:
DC-8 (See full schedule)
Flight Number:
1153
Payload Configuration:
OIB-ATM NAV/ATM GPS/ATM-T5/T6/ATM FLIR/ATM CAMBOT MCoRDS/SNOW/Ku RADAR DMS/POS-AV GRAVIMETER & ARMAS (piggyback)
Nav Data Collected:
Yes
Total Flight Time:
11.1 hours
Submitted by:
Timothy Moes on 11/05/16
Flight Segments:

From:	SCCI	**To:**	SCCI
Start:	11/04/16 12:59 Z	**Finish:**	11/05/16 00:03 Z
Flight Time:	11.1 hours		
Log Number:	178010	**PI:**	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Good flight. The aircraft came back in good condition. This flight is primarily derived from the eastern portion of the 2012 PTSK High-Altitude flight, whose lines were themselves derived from 2009 LVIS lines over the main Pine Island Glacier trunk. The mission is designed to collect dh/dt measurements over this area. Weather was great as forecast. A ramp calibration overpass was done at 2000 ft AGL at the beginning of the mission.		

Flight Hour Summary:

	178010
Flight Hours Approved in SOFRS	300
Total Used	306.9
Total Remaining	-6.9

178010 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/04/16	1135	Science	4	4	296
10/05/16	1136	Science	2.7	6.7	293.3
10/12/16	1138	Transit	10.9	17.6	282.4
10/12/16	1139	Transit	3	20.6	279.4
10/14/16 - 10/15/16	1140	Science	10.9	31.5	268.5
10/15/16 - 10/16/16	1141	Science	11.8	43.3	256.7
10/17/16 - 10/18/16	1142	Science	11.8	55.1	244.9
10/20/16 - 10/21/16	1143	Science	11.4	66.5	233.5
10/22/16	1144	Science	11	77.5	222.5
10/24/16 - 10/25/16	1145	Science	11.5	89	211
10/25/16 - 10/26/16	1146	Science	11.3	100.3	199.7
10/26/16 - 10/27/16	1147	Science	12.1	112.4	187.6
10/27/16 - 10/28/16	1148	Science	11.5	123.9	176.1
10/28/16 - 10/29/16	1149	Science	11	134.9	165.1
10/31/16 - 11/01/16	1150	Science	11	145.9	154.1
11/02/16 - 11/03/16	1151	Science	11.2	157.1	142.9
11/03/16 - 11/04/16	1152	Science	11.5	168.6	131.4
11/04/16 - 11/05/16	1153	Science	11.1	179.7	120.3
11/05/16 - 11/06/16	1154	Science	11.7	191.4	108.6

11/07/16 - 11/08/16	1155	Science	11.2	202.6	97.4
11/09/16 - 11/10/16	1156	Science	11.7	214.3	85.7
11/10/16	1157	Science	10.9	225.2	74.8
11/11/16 - 11/12/16	1158	Science	11.3	236.5	63.5
11/12/16 - 11/13/16	1159	Science	11.1	247.6	52.4
11/14/16	1160	Science	10.9	258.5	41.5
11/15/16 - 11/16/16	1161	Science	11.6	270.1	29.9
11/17/16 - 11/18/16	1162	Science	11.1	281.2	18.8
11/18/16 - 11/19/16	1163	Science	11.1	292.3	7.7
11/21/16	1165	Transit	11.6	303.9	-3.9
11/21/16	1164	Transit	3	306.9	-6.9

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

OIB - DC-8 11/04/16 Science Report

Mission:
OIB
Mission Summary:

IceBridge successfully completed the baseline priority Pine Island 5 mission. This flight is primarily derived from the eastern portion of the 2012 PTSK High-Altitude flight, whose lines were themselves derived from 2009 LVIS lines over the main Pine Island Glacier trunk. The mission is designed to collect dh/dt measurements over this area. The lines were also supplemented with segments from the 2002-2009 NASA-Chilean and OIB lines over several of the tributary channels feeding the main channel.

Some high altitude data was collected on transit to the main data line, though a significant amount of blowing snow was present and may cause a loss of some data. The start of the low altitude data line was slightly hazy with blowing snow on the surface as well, though ATM and DMS were able to see through it. ATM collected narrow scan data during the ramp pass and for the initial line on approach to the grid, about one hour of data on several other lines on the grid, and some high altitude data on the transit back. This was done to attain some overlap with the wide scan system, but preserve the laser system in case it is needed as a back-up later in the campaign. Both DMS and MCoRDS collected opportunistic data on the high altitude portion of the transit as well. Lastly, ATM suffered a failure of one of their Applanix units near the end of the mission, though back-up systems are in place to prevent loss of data from this event.

Overall, the mission went smoothly with no significant data loss due to weather or instrument issues.

Data volumes
ATM: T5: 15 Gb T6: 28 Gb
FLIR: 10.6 Gb
Cambot: 31 Gb
DMS: 66 Gb
Snow/Ku radars: 428 Gb each
MCoRDS: 1.3 Tb
AIRGrav: 4.5 Gb
data on: 1600 (high altitude) 1618(low altitude)
data off: 2037

File:
PIG5_map.pdf
Submitted by:
Nathan T. Kurtz on 11/04/16

Page Editor: Erin Justice

NASA Official: Bruce A. Tagg

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